



Lane Street Groundwater Contamination Superfund Site Community Update

Elkhart, Indiana

May 22, 2013

6:30-8:30 p.m.



Introductions

- U.S. Environmental Protection Agency (U.S. EPA)
 - Leslie Blake, Remedial Project Manager
 - Janet Pope, Community Involvement Coordinator
 - Keith Fusinski, PhD, Human Health Risk Assessor
- Agency for Toxic Substances and Disease Registry (ATSDR)
 - Mark D. Johnson, PhD, Regional Director
- Indiana Department of Environmental Management (IDEM)
 - Doug Petroff, Environmental Manager
- Elkhart County Health Department
 - Gabe Cameron, Environmental Services Division



Purpose for Meeting

- Three Reasons:
 - New Remedial Project Manager
 - 2011 Remedial Investigation Results
 - Update on ongoing investigation



Lane Street Site Map

Red = Boundary of Area Investigated



Lane Street Site History

August 2007

Site was reported to
IDEM from the
Elkhart County
Health Department

September 2007

Residents were
provided with
bottled water

August 2007

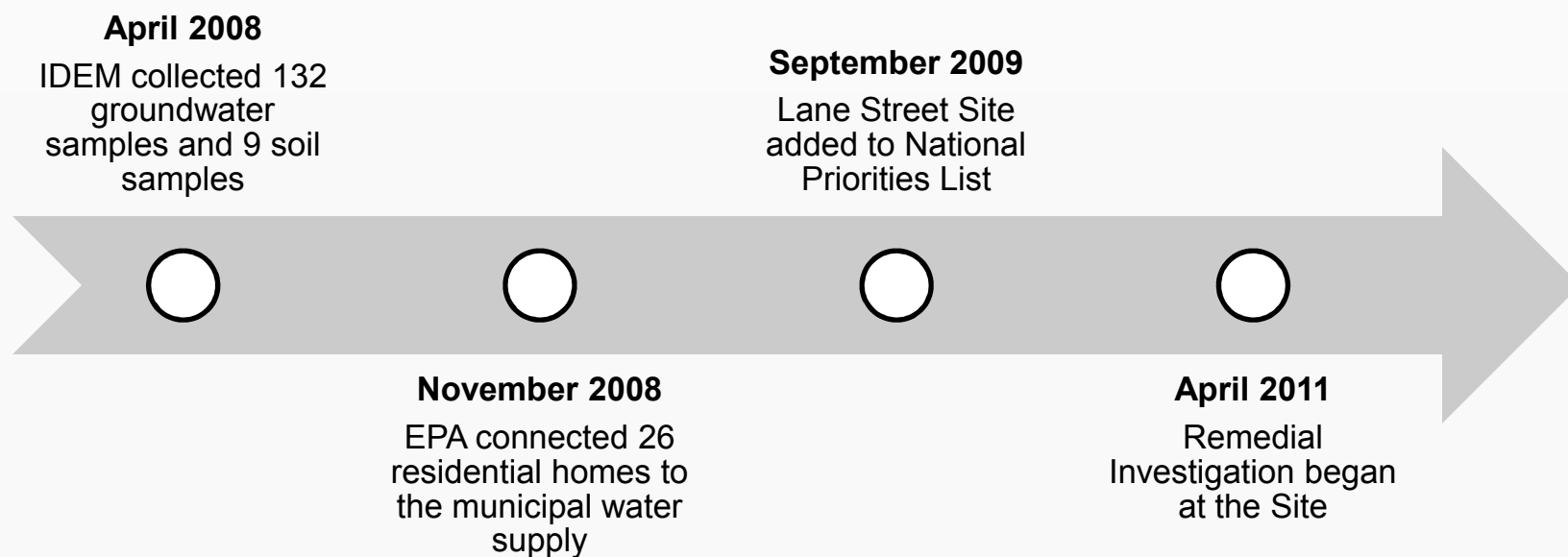
IDEM sampled
groundwater from
39 private wells

October 2007

IDEM & EPA
replaced bottled
water with carbon
filters

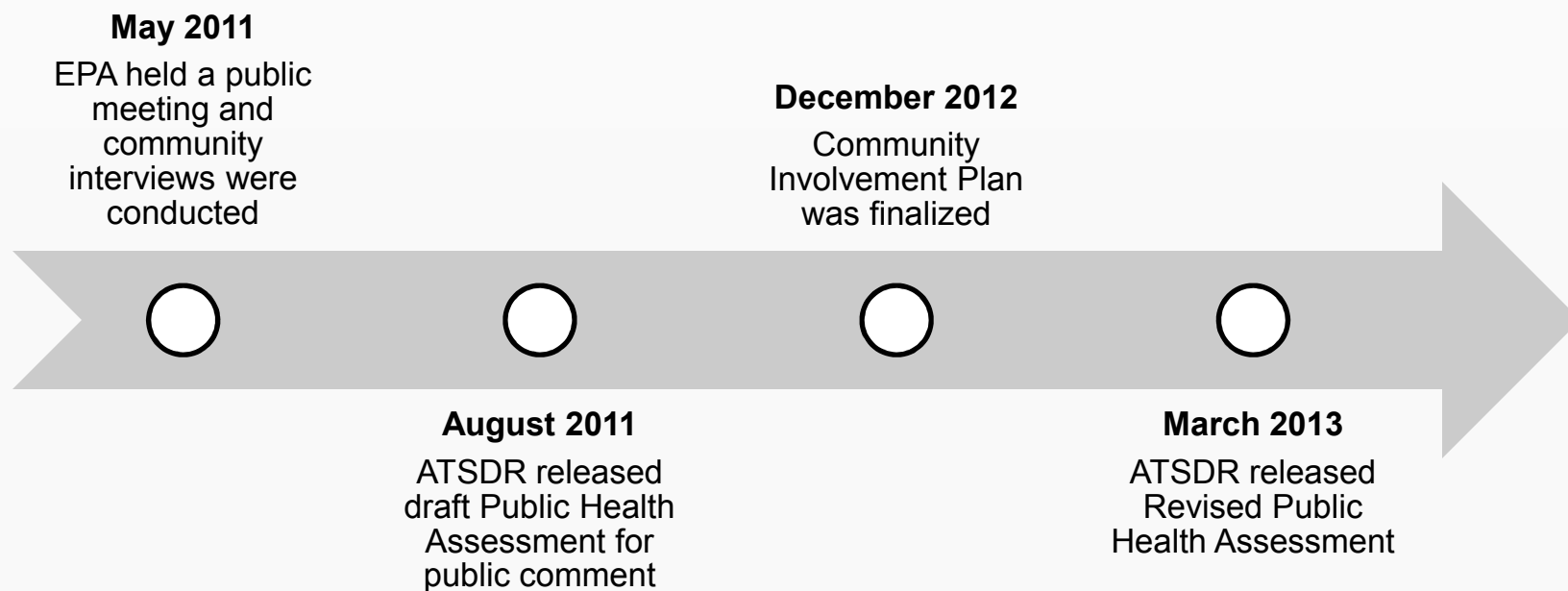


Lane Street Site History, cont'd





Lane Street Site History, cont'd





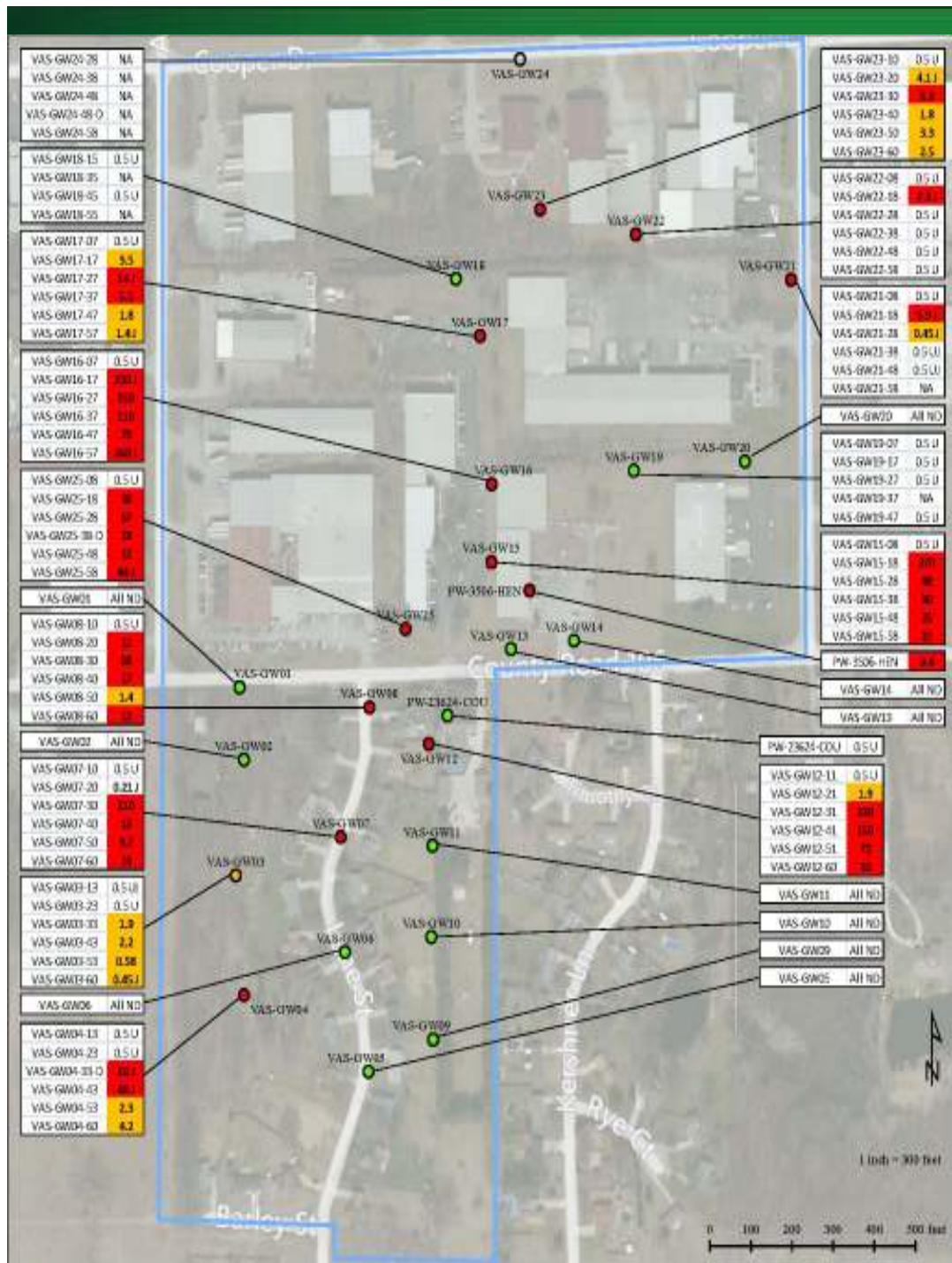
2011 Remedial Investigation

- Comprehensive Study
 - To delineate both the horizontal and vertical extent of groundwater contamination
 - To help determine the source of contamination
- Vertical Aquifer Sampling (VAS) at 25 different locations- residential and industrial area
- Approximately 170 groundwater samples and 14 soil samples were collected



2011 Investigation Results

- Groundwater contamination including:
 - Trichloroethylene (TCE),
 - 1,1-Dichloroethane (1,1-DCA), and
 - Tetrachloroethylene (PCE)
- No groundwater contamination at the water table (approximately 6-8 feet below ground surface)
- No VOC soil contamination
- GW contamination may be deeper than 60 feet
- Source not identified



TCE Groundwater Results

Screening Values for TCE:

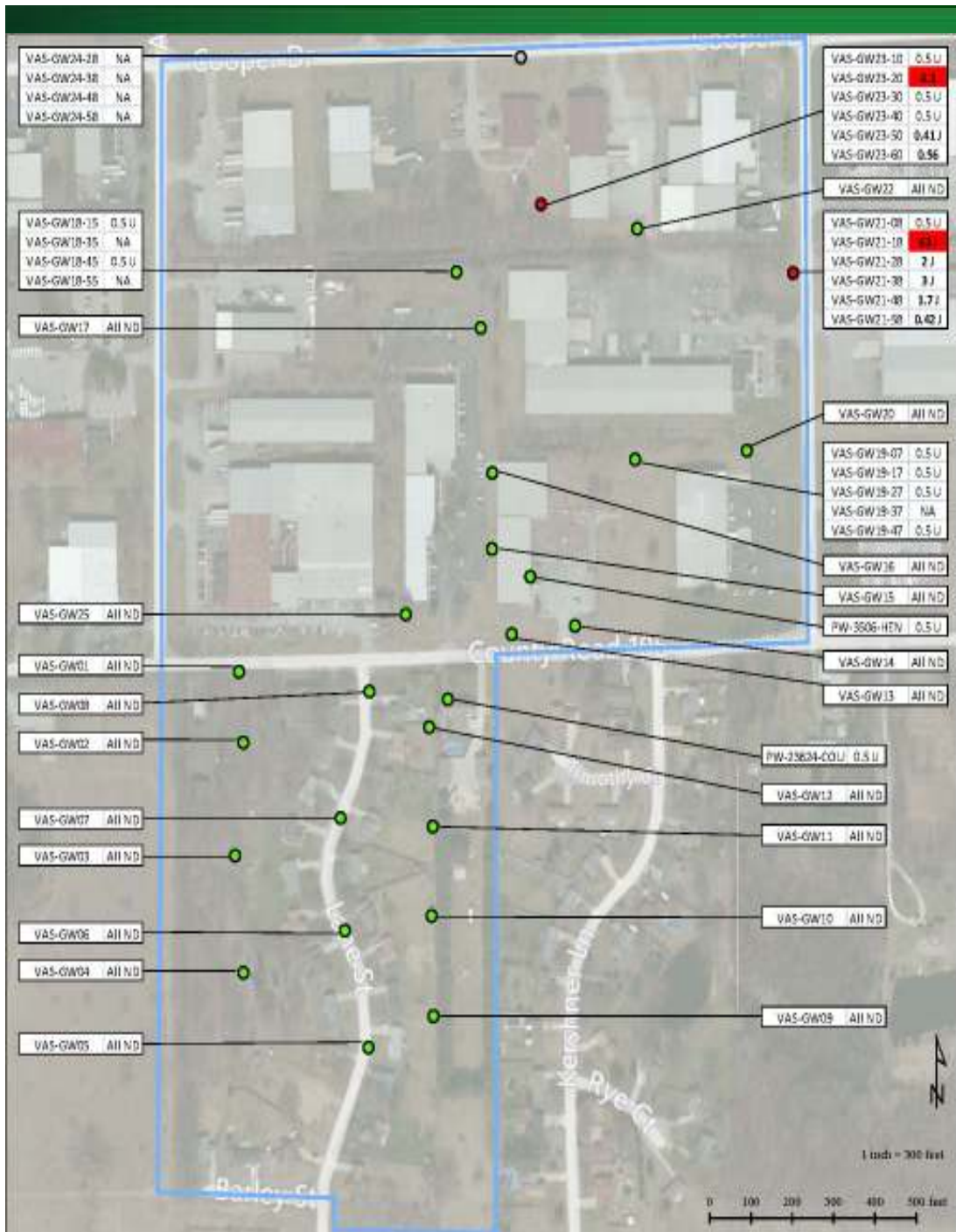
- Tap water: 0.44 ug/L
- MCL: 5 ug/L

Legend:

- Green = Not detected
- Yellow = Detection
- Orange = Tapwater exceedance
- Red = MCL exceedance

Source: Regional Screening Level (RSL) Summary Table
November 2012

<http://www.epa.gov/region9/superfund/prg/>



PCE Groundwater Results

Screening Values for PCE:

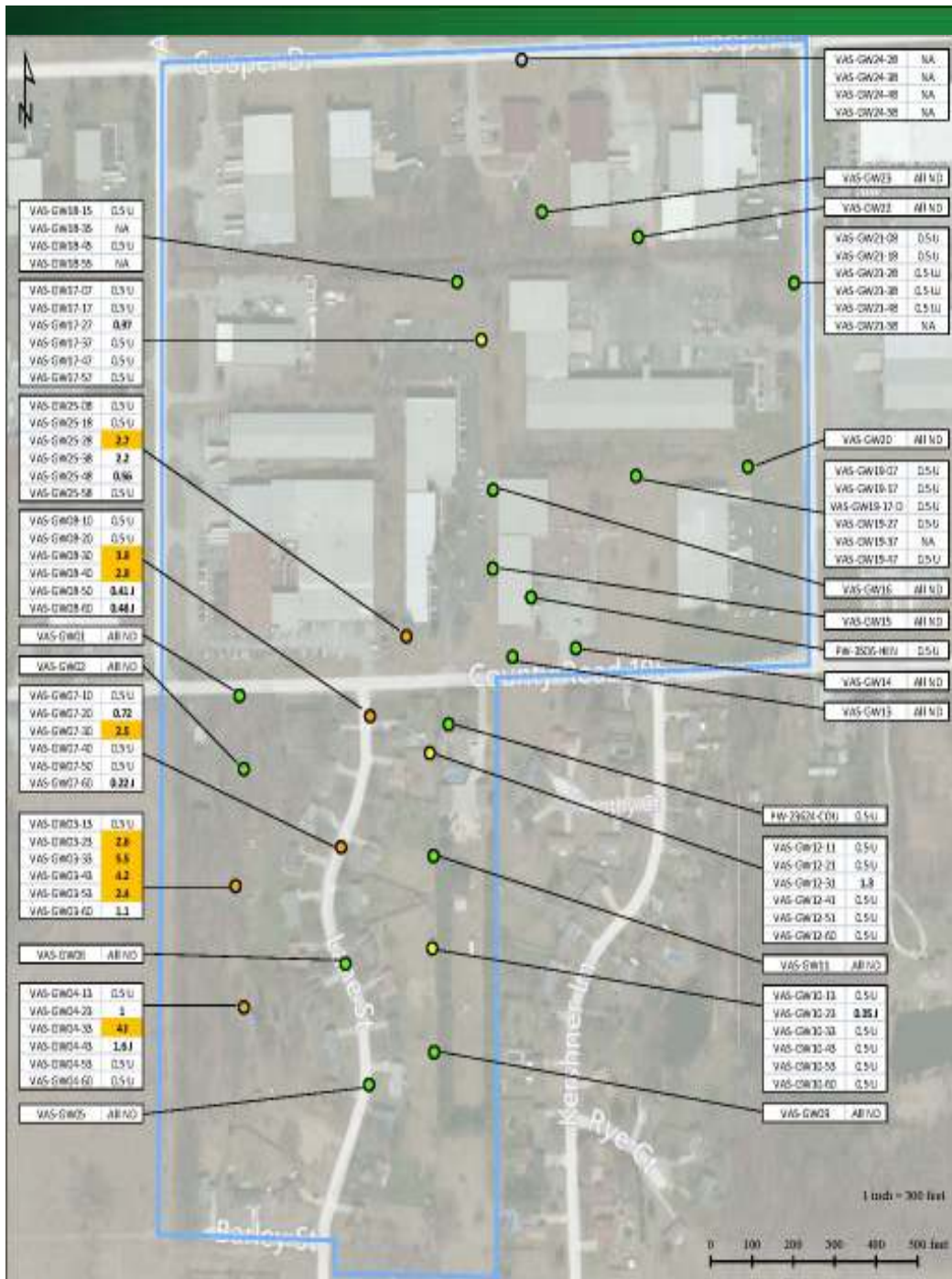
- Tap water: 9.7 ug/L
- MCL: 5 ug/L

Legend:

- Green = Not detected
- Yellow = Detection
- Red = MCL exceedance

Source: Regional Screening Level (RSL) Summary Table
November 2012

<http://www.epa.gov/region9/superfund/prg/>



1,1-DCA Groundwater Results

Screening Values for 1,1-DCA:

- Tap water: 2.4 ug/L (orange)
- MCL: No criteria

Legend:

- Green = Not detected
- Yellow = Detection
- Orange = Tap water exceedance

Source: Regional Screening Level (RSL) Summary Table
November 2012

<http://www.epa.gov/region9/superfund/prg/>



Next Steps

- Further Groundwater Investigation to:
 - Determine the extent of contamination
 - Try to determine the potential source or sources
 - Define the extent of the plume
- Propose a remedy to address contamination



2013 Investigation

Phase I (Spring 2013):

- 12 VAS Locations (Downgradient, Near Highest TCE, Upgradient)
- Groundwater Sampling from 22 existing wells
 - Former Flexsteel properties (3507 Cooper Dr & 2503 Marina Dr)

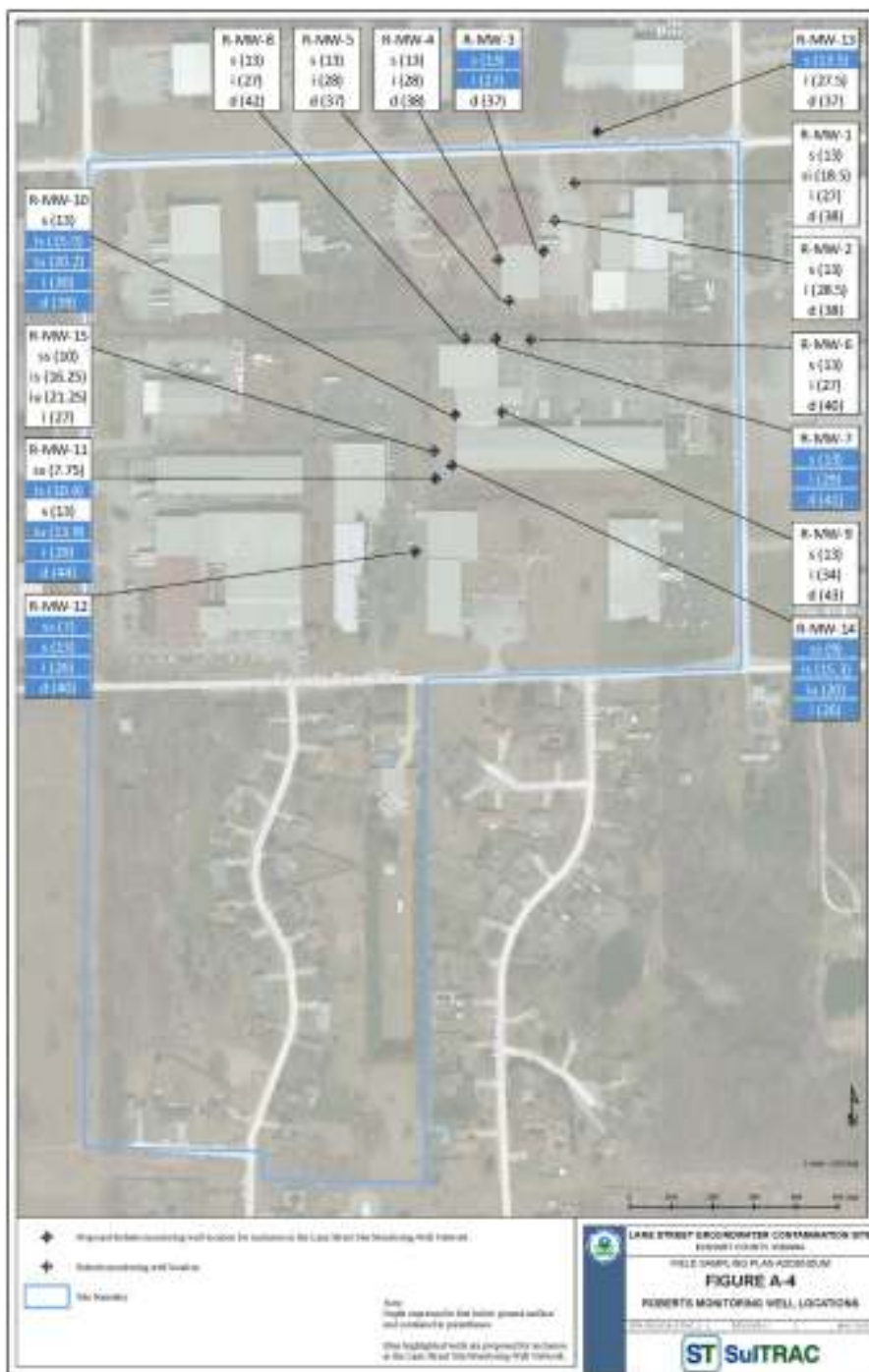
Phase II (Fall 2013):

- 20 Permanent Monitoring Well Locations
- Vapor Intrusion Investigation
 - Soil Gas Sampling



Phase I 2013 Proposed VAS Sampling Locations:

- △ Downgradient Definition:
-2 VAS Locations to 100 feet
- Near Highest TCE Concentrations:
-3 VAS Locations to 140 feet
- Upgradient Definition:
-2 VAS Locations to 60 feet
-5 VAS Locations to 35 feet



Phase I GW Sampling from 22 existing wells: (highlighted blue wells)

- R-MW-3: at 2 locations (s & i)
- R-MW-7: at 3 locations (s, i, & d)
- R-MW-10: at 4 locations (is, iu, i, & d)
- R-MW-11: at 4 locations (is, iu, i, & d)
- R-MW-12: at 4 locations (ss, s, i, & d)
- R-MW-13: at 1 location (s)
- R-MW-14: at 4 locations (ss, is, iu, & i)

Legend:

- ss: shallow screening – 5-foot screen
- s: shallow – 10-foot screen
- is: intermediate shallow – 5-foot screen
- iu: intermediate upper – 5-foot screen
- i: intermediate – 5-foot screen
- d: deep – 5-foot screen



Phase II 2013 Investigation- MW Installation

- Install 30 Permanent Monitoring Well Locations
 - Locations to be installed in three separate zones: shallow (5-15 ft), intermediate (20-30 ft), and deep (50-60 ft)
 - Exact locations dependent upon field data
 - One year of quarterly groundwater sampling
 - All wells to be sampled for VOCs



Phase II

2013 Proposed Monitoring Well Locations:

- MW-1 through MW-11
- Wells will vary in depths based on VAS field data



Phase II 2013 Investigation- Vapor Intrusion Diagram Example:

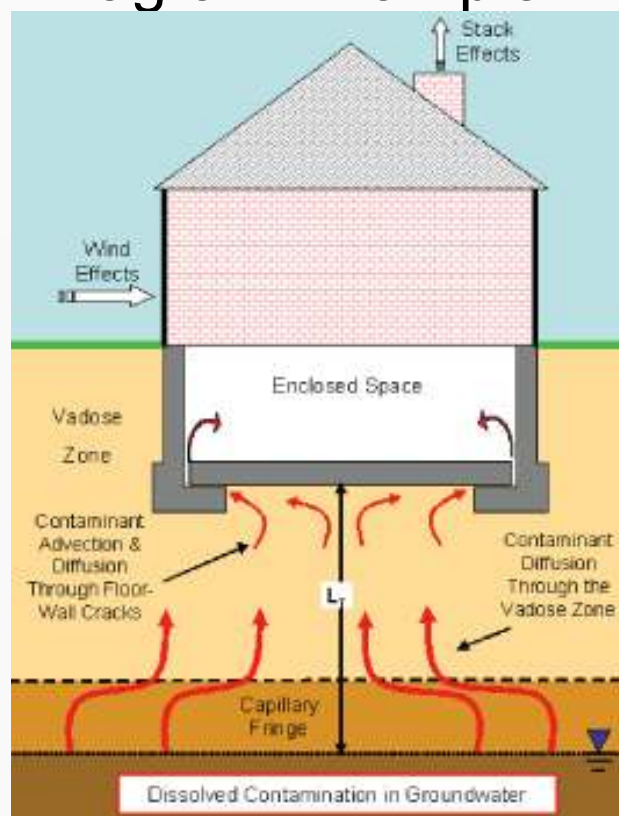


Diagram Source:

05/2013

U.S. Environmental Protection Agency

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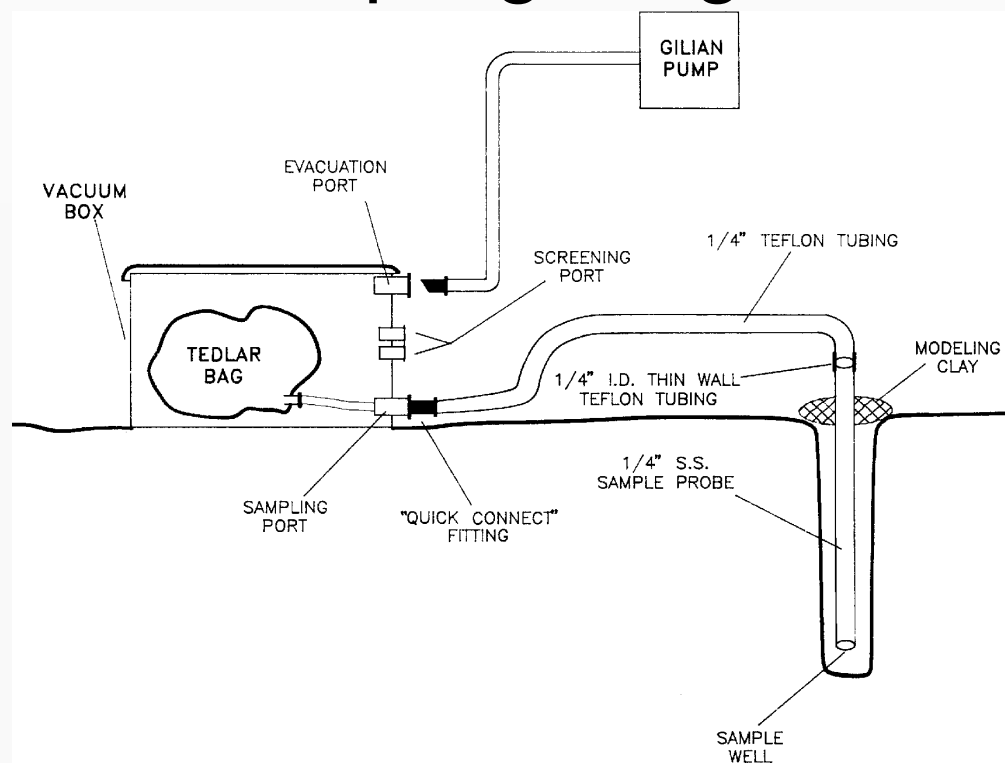


Phase II 2013 Investigation- Vapor Intrusion

- Vapor Intrusion Investigation
 - Soil Gas Sampling: Total of 18 soil vapor probes will be installed at various locations within the residential area
 - Collect samples of the vapor that resides in the soil pores



Soil Gas Sampling Diagram Example:





Things to Consider

- Schedule is dependent upon access agreement approvals
- A third sampling event may be necessary if we are unable to fully delineate the extent of contamination in the second event



Site Contact Information

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Additional Information

- Information about Remedial work at the Site:
<http://www.epa.gov/region5/cleanup/lanestreet/>
- Information about the Superfund cleanup process:
<http://www.epa.gov/superfund/cleanup/index.htm>



Questions?